

IN THE CLAIMS:

Please amend the claims as indicated below.

1. (Currently Amended) A method for classifying data, comprising the steps

5 of:

classifying objects in a domain dataset using one or more data
classification models, each of said one or more data classification models having a bias;

selecting at least one of said one or more data classification models based
on a meta-feature that characterizes said domain data set;

10 evaluating the performance of said classifying step; ~~and~~

modifying said bias based on said performance evaluation; and

determining a characterization of an object using one of said data
classification models having a modified bias, wherein one or more of said steps are
performed by a hardware device.

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2. (Original) The method of claim 1, wherein said steps of classifying and
evaluating are performed for a plurality of said domain datasets and wherein said method
further comprising the steps of recording a performance value for each combination of
said domain datasets and said bias.

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3. (Original) The method of claim 2, further comprising the step of
processing said recorded performance values for each combination of said domain
datasets and said bias to generate one or more rules, each of said rules specifying one or
more characteristics of said domain datasets and a corresponding bias that should be
25 utilized in one of said data classification models.

4. (Original) The method of claim 3, further comprising the step of selecting
a data classification model for classifying a domain dataset by comparing characteristics
of said domain dataset to said rules.

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5. (Original) The method of claim 1, wherein said domain dataset is represented using a set of meta-features.

6. (Original) The method of claim 5, wherein said meta-features includes a
5 concept variation meta-feature.

7. (Original) The method of claim 5, wherein said meta-features includes an average weighted distance meta-feature that measures the density of the distribution of said at least one domain dataset.

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8. (Currently Amended) A method for classifying data, comprising the steps of:

classifying objects in a plurality of domain datasets using one of a number of data classification models, each of said data classification models having a
15 corresponding bias;

evaluating the performance of each of said domain dataset classifications;
maintaining a performance value for each combination of said domain datasets and said bias;

processing said performance values for each combination of said domain
20 datasets and said bias to generate one or more rules, each of said rules specifying one or more characteristics of said domain datasets and a corresponding bias that should be utilized in one of said data classification models; and

selecting a data classification model for classifying a domain dataset by comparing characteristics of said domain dataset to said rules; and

25 determining a characterization of an object using said selected data classification model having a corresponding bias, wherein one or more of said steps are performed by a hardware device.

9. (Original) The method of claim 8, further comprising the step of
30 modifying at least one of said biases based on said performance evaluation.

10. (Original) The method of claim 8, wherein said domain dataset is represented using a set of meta-features.

11. (Original) The method of claim 10, wherein said meta-features includes a
5 concept variation meta-feature.

12. (Original) The method of claim 10, wherein said meta-features includes an average weighted distance meta-feature that measures the density of the distribution of said at least one domain dataset.

10 13. (Currently Amended) A method for classifying data in a domain dataset, comprising:

applying an adaptive learning algorithm to said domain dataset to select a data classification model based on a meta-feature that characterizes said domain data set,
15 said data classification model having a bias;

classifying objects in said domain dataset using said selected data classification model;

evaluating the performance of said classifying step;

maintaining an indication of said performance of said model for said
20 domain dataset;

repeating said applying, classifying and evaluating steps for a plurality of said domain datasets; ~~and~~

processing said performance values for each combination of said domain datasets and said bias to adjust one or more rules for subsequent data classification, each
25 of said rules specifying one or more characteristics of said domain datasets and a corresponding bias that should be utilized in one of said data classification models; and

determining a characterization of an object using said selected data classification model having a bias, wherein one or more of said steps are performed by a hardware device.

14. (Original) The method of claim 13, further comprising the step of selecting a data classification model for classifying a domain dataset by comparing characteristics of said domain dataset to said rules.

5 15. (Original) The method of claim 13, further comprising the step of modifying at least one of said biases based on said performance evaluation.

16. (Currently Amended) A system for classifying data, comprising:
a memory that stores computer-readable code; and
10 a processor operatively coupled to said memory, said processor configured to implement said computer-readable code, said computer-readable code configured to:
classify objects in a domain dataset using a one or more data classification models, each of said one or more data classification models having a bias;
selecting at least one of said one or more data classification models based
15 on a meta-feature that characterizes said domain data set;
evaluate the performance of said classifying step; and
modify said bias based on said performance evaluation; and
determine a characterization of an object using said data classification
model having a modified bias.

20 17. (Original) The system of claim 16, wherein said processor is further configured to classify said objects and evaluate said performance for a plurality of said domain datasets and wherein said processor records a performance value for each combination of said domain datasets and said bias.

25 18. (Original) The system of claim 17, wherein said processor is further configured to process said recorded performance values for each combination of said domain datasets and said bias to generate one or more rules, each of said rules specifying one or more characteristics of said domain datasets and a corresponding bias that should
30 be utilized in one of said data classification models.

19. (Original) The system of claim 18, wherein said processor is further configured to select a data classification model for classifying a domain dataset by comparing characteristics of said domain dataset to said rules.

20. (Original) The system of claim 16, wherein said domain dataset is represented using a set of meta-features.

21. (Currently Amended) A system for classifying data, comprising:

a memory that stores computer-readable code; and

a processor operatively coupled to said memory, said processor configured to implement said computer-readable code, said computer-readable code configured to: classify objects in a plurality of domain datasets using one of a number of data classification models, each of said data classification models having a corresponding bias;

evaluate the performance of each of said domain dataset classifications; maintaining a performance value for each combination of said domain datasets and said bias;

process said performance values for each combination of said domain datasets and said bias to generate one or more rules, each of said rules specifying one or more characteristics of said domain datasets and a corresponding bias that should be utilized in one of said data classification models; and

select a data classification model for classifying a domain dataset by comparing characteristics of said domain dataset to said rules; and

determine a characterization of an object using said selected data classification model having a corresponding bias.

22. (Currently Amended) An article of manufacture for classifying data, comprising:

a tangible computer readable recordable storage medium containing one or more programs which when executed implement the steps of having computer-readable code means embodied thereon, said computer-readable program code means comprising:

~~a step to classifying~~ objects in a domain dataset using a one or more data classification models, each of said one or more data classification models having a bias;
selecting at least one of said one or more data classification models based on a meta-feature that characterizes said domain data set;

5 ~~a step to evaluate~~ evaluating the performance of said classifying step; and
~~a step to modifying~~ said bias based on said performance evaluation; and
determining a characterization of an object using said data classification
model having a modified bias.

10 23. (Currently Amended) An article of manufacture for classifying data, comprising:

a tangible computer readable recordable storage medium containing one or more programs which when executed implement the steps of having computer-readable code means embodied thereon; ~~said computer-readable program code means comprising:~~

15 ~~a step to~~ classifying objects in a plurality of domain datasets using one of a number of data classification models, each of said data classification models having a corresponding bias;

~~a step to evaluate~~ evaluating the performance of each of said domain dataset classifications;

20 ~~a step to~~ maintaining a performance value for each combination of said domain datasets and said bias;

~~a step to~~ processing said performance values for each combination of said domain datasets and said bias to generate one or more rules, each of said rules specifying one or more characteristics of said domain datasets and a corresponding bias that should
25 be utilized in one of said data classification models; and

~~a step to~~ selecting a data classification model for classifying a domain dataset by comparing characteristics of said domain dataset to said rules; and

determining a characterization of an object using said selected data classification model having a corresponding bias, wherein one or more of said steps are performed by a hardware device.

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